Exploring the Energy/Water Nexus:

A Stakeholder Dialogue for Identification of Critical Issues

Friday, February 25, 2005
10:00 a.m. – 2:30 p.m.

NREL Visitors Center
Golden, Colorado

Introductory Remarks
by
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Good morning, ladies and gentlemen. Let me start by saying thank you for coming to today's workshop – and for agreeing to help us explore the nexus between energy and water. For those of us who call the West home, the tie between energy and water is elemental. Reexamination of this nexus, especially in light of our continued regional growth, is not only timely, but is critical if we're to maintain the standard of living and Western aesthetic we all cherish.

I am the Acting Director of DOE's Central Regional Office, and work for the Assistant Secretary for Energy Efficiency and Renewable Energy. DOE's mission is to assist you to meet YOUR

energy, economic, and environmental goals. The Central Region is comprised of 12 states, stretching from Montana through Louisiana, and the Dakotas through Utah. Through our programs, such as Weatherization, State Energy Programs, and Special Projects, we provide states and local entities financial and technical assistance.

What does our energy-water challenge look like?

From 1990 to 2000, the population of the 12 states that comprise DOE's Central Region, increased just over 17 percent, and growth continues.

Look right here in Douglas County and consider the amount of water now being pumped --at a high energy cost-- or count the number of new homes, all using more household water and electricity, going up in the Highlands Ranch area.

Think about the fact that 80-to-90 percent of the water used in our region is used in agriculture.

Ponder the increasing number of environmental issues centering on water, such as the groundwater issues with natural gas extraction

or coal bed methane production, or water consumed in electricity production.

Contemplate the fact that municipalities such as Houston, Texas, now spend up to 65 percent of their energy budget pumping and moving water, and treating waste water.

These, and a multitude of other potential water and energy issues, are real. They are legitimate challenges. We face them today; they are neither intellectual exercises nor hypothetical problems.

As you begin your task today, you will no doubt be challenged to look at the energy-water nexus in unconventional ways. Some questions you might ask are:

- How can we improve the security of our water infrastructure with renewables?
- How can we improve our regional air quality using renewables in water infrastructure management?
- How can renewables be used to further reduce our use of water in conventional energy production?
- How can renewables be used to lower the cost of water pumping and storage in both our cities and in our farmlands?

I wish you all good speed and clear thinking in this endeavor. Help us to guide our researchers, managers, and public officials to come up with important new ideas and areas of joint endeavors that will truly make our Western energy and water practices the best and most efficient in the world. The future demands no less.

…. And now our next speaker, Stan Bull….. …… ….. …..